REMARKS

I. Introduction

In response to the Office Action dated August 5, 2009, which was made final, and in conjunction with the Request for Continued Examination (RCE) submitted herewith, claims 1, 5, 19, 23, 37 and 41 have been amended. Claims 1, 4-9, 11-19, 22-27, 29-37, 40-45 and 47-54 remain in the application. Re-examination and re-consideration of the application, as amended, is requested.

II. Prior Art Rejections

In section (3) of the Office Action, claims 1, 4-5, 7-9, 11 -1 7, 19, 22-23, 25-27, 29-35, 37, 40-41, 43-45 and 47-53 were rejected under 35 U.S.C. §103(a) as being unpatentable over Johnson et al., U.S. Patent No. 7,082,411 (Johnson), in view of Sandretto, U.S. Patent No. 5,812,988 (Sandretto), in view of Fundamentals of Financial Management by Kuhlemeyer (Kuhlemeyer), and further in view of Keyes et al., U.S. Patent No. 7,447,652 (Keyes). In section (4) of the Office Action, claims 6, 24 and 42 were rejected under 35 U.S.C. §103(a) as being unpatentable over Johnson et al., U.S. Patent No. 7,082,411 (Johnson), in view of Sandretto, U.S. Patent No. 5,812,988 (Sandretto), in view of Fundamentals of Financial Management by Kuhlemeyer (Kuhlemeyer), in view of Keyes et al., U.S. Patent No. 7,447,652 (Keyes), and further in view of Atkins, U.S. Patent No. 5,852,811 (Atkins).

However, in section (5) of the Office Action, claims 18, 26 and 54 were indicated as being allowable if rewritten in independent form to include the base claim and any intervening claims.

Applicant's attorney acknowledges the indication of allowable claims, but respectfully traverses the rejections. Specifically, Applicant's attorney submits that the combination of references does not teach or suggest all of the various elements of Applicant's independent claims.

Applicant's claims recite a new variation for future value (FV) calculations, in their use of FV attrition rules. Specifically, the FV attrition rules are novel and nonobvious improvements to prior art FV calculations.

The combination of Johnson, Sandretto, Kuhlemeyer and Keyes, for example, merely describe well-known prior art net present value (NPV) calculations. However, none of these

references describe the novel and nonobvious specific FV calculations performed in independent claims 1, 19 and 37, and thus the combination fails to render obvious these claims.

Moreover, Applicant's attorney respectfully submits that the Office Action fails to establish how each and every one of the claim limitations is disclosed by the combination of references. Instead, the Office Action merely lists Applicant's claim limitations followed by parentheticals listing page and line numbers, figures, and/or similar words or phrases found in the references, without considering each limitation in its entirety and the independent claims as a whole. Consequently, the Office Action fails to show how each and every element set forth in the independent claims is found in the combination of references, or that each of the independent claims as a whole is taught by the combination of references. As a result, Applicant's attorney respectfully submits that a prima facie obviousness rejection has not been made.

A. The references do not teach the specific steps involved in "applying the FV attrition rules."

None of the references teach or suggest the specific steps involved in independent claims 1, 19 and 37 when applying the FV attrition rules, namely "matching the FV attrition rule to the selected accounts, matching the results of the FV propensity rule to the matched accounts, obtaining an attrition rate for the matched accounts, calculating an effective attrition rate for each forecast period from the attrition rate and a net change rate defined in the FV attrition rule for each forecast period, performing the FV attrition rule to calculate an FV expected value from the effective attrition rate and a propensity rule amount defined in the FV attrition rule, and storing the FV amount."

For example, consider the following cited portions or Johnson and Sandretto which the Office Action asserts teaches these limitations:

> Johnson: column 4, lines 10-19
>
> Individual asset data (not shown) for each asset in portfolio 12 is entered into a database 76 from which selected data 78 is retrieved based on a given criteria 80 for the iterative and adaptive process 32. When criteria 80 is established for valuation of any asset, that established criteria 80 is stored in database 76 for use in valuating other asset data in database 76 which shares such an established criteria. Iterative and adaptive valuation process 32 thus develops 82 valuations (described below) and groups 84 them for use in bidding.

Johnson: column 9, lines 3-26

In general, NPV is defined as:

$$NPV = c_0 + \frac{c_1}{1+r}$$

where C.sub.0 is the investment at time 0, C.sub.1 is the expected payoff at time 1, and r is the discount factor. The basic idea is that a dollar today is worth more than a dollar tomorrow.

In the case of insurance policies, NPV is defined as:

$$NPV = \sum P - \sum E - (\sum C) \times \frac{A}{E_W}$$

where P is the premium, E is the expected nominal cost, and C is the claim cost. In essence, Equation B is how net income as the difference of profit and weighted expected risk is generated. Note that the summation is summing across all the policies in a specific segment. Also note that all the premium, nominal cost, and claim cost have been discounted before entering the equation. As a result, a profitability score is generated.

Johnson: column 9, lines 58-60

Each potential bidder has a range of possible bids that might be submitted to a sealed bid auction. The range of bids can be expressed as a statistical distribution. By stochastically sampling from a distribution of bid values, one possible auction scenario may be simulated. Further by using an iterative sampling technique, for example a Monte Carlo analysis, many scenarios are simulated to produce a distribution of outcomes. The distribution of outcomes include a probability of winning the auction item(s) and the value gain. By varying the value of ones own bid, a probability of winning the auction against ones own bid price can be determined.

Sandretto: column 8, line 60 – column 9, line 19

It is another object of the present invention to provide a method and apparatus for creating a portfolio by: (1) estimating an initial set of cash flows for each asset in a set of two or more assets using known or conventional methods; (2) generate additional estimated cash flows based upon different estimates for one or more economic variables; (3) adjust the original set of cash flows and each additional set of cash flows for expected inflation; (4) determine an initial input risk measure for each asset based on a risk-return type asset pricing model; (5) determine an initial discount rate for each asset using the initial input risk measure for each asset and using different economic variables that relate to each set of cash flows (for example, the risk-free rate and the market risk premium which are typically different for each set of cash flows); (6) discount the inflation-adjusted cash flows at the discount rate to determine a present value for each set of cash flows; (7) use the present values to determine simulated returns for each asset; (8) use the simulated returns for each asset to determine at least one simulated market index return; (9) regress simulated asset returns against simulated market returns or else use division to determine an output risk measure for each asset; (10) use the resulting output risk measure for each asset to estimate a new input risk

measure and; (11) repeats steps 1 through 10 (or 4 through 10 in some implementations) in an iterative process until, for each asset, the output risk measure approximates to within desired accuracy the input risk measure used to determine the most recently iterated discount rate.

Sandretto: column 10, lines 1-7

The process begins by estimating an initial set of financial statements and cash flows for each asset (only cash flows if the asset is a bond or similar asset) for some number of periods using estimated operating, financing, accounting and economic variables an analyst has input into the process. Estimated cash flows may be also be adjusted for expected price changes, such as inflation.

Sandretto: column 17, lines 18-42

With respect to choosing inflation rates, there are many possibilities. Currently, the preferred method is to use a 4-6 month average of the CPI as the inflation rate for one month. One then divides 1.0+the 30-day Treasury yield by 1.0 plus the one-month inflation rate to determine the risk-free rate. Next one determines the cumulative inflation rate as of one year from the valuation date by dividing 1.0 plus the 1-year Treasury yield by 1.0 plus the computed risk-free rate. One then assumes that the inflation rate changes uniformly, on a daily basis, from the 30-day rate to the one-year rate. Thus, for example, the one-year cumulative inflation rate might be 5.6% but the rate as of one year might be 5.9%, which is the level needed to increase the cumulative inflation rate from its level as of one month to its cumulative level of 5.6% as of one year. That is done through an iterative or convergent process. One can next use an anchor year that the user can specify, such as two or three years. One can then increase the inflation rate uniformly on a daily basis from its level as of one year (5.9% in this example) to the long-term inflation rate as of the anchor year. Thus, if the anchor year is 3, and the long-term inflation rate is 8.0%, the inflation rate increase increases uniformly, on a daily basis from 5.9% to 8.0%. As is obvious to one skilled in the art, users of said process may prefer other methods of estimating inflation rates.

Sandretto: column 23, lines 25-42

The 0-n NPVs from Block 380 are used to determine 1-n simulated returns which are stored in Block 390. As illustrated in Block 390, RETURN 1 for ASSET 1 is determined by dividing NPV 1 from Block 380 by NPV 0 from Step 380 and subtracting 1. The last return, RETURN n, is determined by dividing NPV n in Block 380 by NPV 0 in Block 380 and subtracting 1. The other returns corresponding to ASSET 1 are determined in a similar manner and stored in Block 390. According to an alternative embodiment of the invention, the returns may be determined differently, such that RETURN n in Block 390 could be determined by dividing NPV n in Block 380 by NPV n-1, in Block 380 and subtracting 1. Similar to Blocks 380, 410 and 440, Blocks 390, 420 and 450 may be implemented as a two-dimensional matrix with one dimension corresponding to the number of assets and the second dimension corresponding to the number of

additional estimates of economic variables (total sets of economic estimates minus one).

Sandretto: column 23, lines 60-67

In Block 470 there are stored index returns determined using the index NPVs stored in Block 460. For example, index return 1 is determined by dividing NPV 1 from Block 460 by NPV 0 of Block 460 and subtracting 1. Index return n, which is also stored in Block 470, is determined by dividing index NPV n of Block 460 by index NPV 0 of Block 460 and subtracting 1 or, alternatively, by dividing index NPV n by index NPV n-1 and subtracting 1.

Sandretto: column 24, lines 17-39

The output risk measures .beta. for ASSET 1 through ASSET i which are determined as part of the process of the present invention are stored respectively in Blocks 480 through 500 and are used to determine new input risk measures .beta. which will be used to determine new NPVs for each of the assets which will then be stored back in Blocks 380, 410, and 440, and a new set of index NPVs to be stored in Block 460. That is, the output risk measure .beta. stored in Block 480 is used to determine a new input risk measure .beta. for use to determine a new set of NPVs for ASSET 1 which will be stored in Block 380. Typically, the output risk measure .beta. stored in Block 480 will be combined with the previous risk measure .beta. (used to determine the previous set of NPVs of Block 380), so that the process may determine a revised NPV 0, and NPV 1 through NPV n for ASSET 1. Similarly, the output risk measure .beta. for ASSET 2 in Block 490 is used, in combination with the previous risk measure .beta. for ASSET 2, to determine a revised NPV 0, and NPV 1 through NPV n for ASSET 2 which will be stored in Block 410; the output risk measure .beta. from Block 500 is used, in combination with the previous risk measure .beta. for ASSET i, to determine a revised NPV 0, and NPV 1 through NPV n for ASSET i which will be stored in Block 440.

There is no discussion in the above cited portions of Johnson and Sandretto of FV attrition rules, FV propensity rules, attrition rates obtained from matched accounts, a calculated effective attrition rate, a net change rate for each forecast period, propensity rule amounts, or the specific calculating or rule performing steps or functions of Applicant's independent claims.

Instead, Johnson merely describes a method of valuation of large groups of assets by partial full underwriting, partial sample underwriting and inferred values of the remainder using an iterative and adaptive statistical evaluation of all assets and statistical inferences drawn from the evaluation and applied to generate inferred values. Individual asset values are developed and listed in tables so that individual asset values can be taken and quickly grouped in any desired or prescribed manner for bidding purposes. The assets are collected into a database, divided by

credit variable, subdivided by ratings as to those variables and then rated individually. The assets are then regrouped according to a bidding grouping and a collective valuation established by cumulating the individual valuations.

The above portions of Johnson cited by the Office Action merely refer to establishing valuations of assets using NPV (Net Present Value), not FV (Future Value). Moreover, as admitted by the Office Action, nowhere do the above portions of Johnson refer to FV attrition rules, FV propensity rules, attrition rates, effective attrition rates, net change rates, FV expected values, propensity rule amounts, or the specific steps or functions performed by Applicant's claims.

Nonetheless, the Office Action cites Sandretto as teaching these elements of Applicant's claims. However, Sandretto merely describes methods and apparatus for: (1) inputting economic variables expected to influence future asset values and asset-specific variables; (2) estimating financial statements, future asset values, and tentative asset NPVs using estimated economic variables and estimated asset-specific variables; (3) estimating different financial statements, future asset values and current asset NPVs assuming different estimates of the economic variables that affect asset values; and (4) processes to: (a) equate; or (2) reduce to acceptably small numbers the differences between: (i) the risk measures, terminal values, default premiums, and risk premiums used to determine current values, and (ii) risk measures, terminal values, default premiums, and risk premiums implied by the estimates of economic and firm-specific variables.

The above portions of Sandretto cited by the Office Action refer to "future asset values," but Sandretto does not determine these values in the manner recited in Applicant's independent claims. Indeed, the above portions of Sandretto do not teach or suggest FV attrition rules, FV propensity rules, attrition rates, effective attrition rates, net change rates, FV expected values, propensity rule amounts, or the specific steps or functions performed by Applicant's claims. Instead, Sandretto merely refers to estimating discount rates by calculating risk measures, which are used to discount projected cash flows.

Consequently, Applicant's claim limitations would not have been obvious to one skilled in the art at the time the invention was made.

B. The references do not teach the specific types of "FV attrition rules."

None of the references teach or suggest the specific types of FV attrition rules recited in Applicant's independent claims 1, 19 and 37, namely "Constant (no compounding), Constant (with compounding), Additive (no compounding), Additive (with compounding), Manual (no compounding), Manual (with compounding), Constant and Negative Compounding methods."

Instead, the Office Action merely makes a general assertion that the Kuhlemeyer reference teaches these limitations because the cited portions of the cited reference use similar terms. However, in neither instance is the claim as whole, or even the limitation as a whole, described in the cited potions in the Kuhlemeyer reference. Instead, Kuhlemeyer merely describes the use of different cash flows in different forecast periods. These different cash flows of Kuhlemeyer merely comprise examples of specific amounts, and do not comprise Applicant's specific types of FV attrition rules, namely "Constant (no compounding), Constant (with compounding), Additive (no compounding), Additive (with compounding), Manual (no compounding), Manual (with compounding), Constant and Negative Compounding methods."

Consequently, Applicant's claim limitations would not have been obvious to one skilled in the art at the time the invention was made.

C. The remaining references do not overcome these deficiencies.

The remaining Keyes reference fails to overcome these deficiencies of Johnson, Sandretto and Kuhlemeyer. Moreover, this is conceded by the Office Action because the Keyes reference was cited only for teaching limitations of Applicant's independent claims 1, 19 and 37 directed to selecting accounts, amounts and rates from account data, generating cash flow and net present value based on received cash flow information, expenses and timings, and providing different scenarios based on a variety of assumptions taking into account a variety of foreseeable risks.

Similarly, the Atkins reference fails to overcome these deficiencies of Johnson, Sandretto, Kuhlemeyer and Keyes. Recall that the Atkins reference was cited only against dependent claims 6, 24 and 42, and was cited only for describing the limitations shown in those dependent claims, but not any of the limitations shown in the independent claims.

Consequently, Applicant's claim limitations would not have been obvious to one skilled in the art at the time the invention was made.

D. Summary.

In summary, Applicant's independent claims 1, 19 and 37 recite limitations not shown by the combination of Johnson, Sandretto, Kuhlemeyer and Keyes. Thus, Applicant's attorney submits that independent claims 1, 19 and 37 are allowable over Johnson, Sandretto, Kuhlemeyer and Keyes. Further, dependent claims 4-9, 11-18, 22-27, 29-36, 40-45 and 47-54 are submitted to be allowable over Johnson, Sandretto, Kuhlemeyer, Keyes and Atkins in the same manner, because they are dependent on independent claims 1, 19 and 37, respectively, and thus contain all the limitations of the independent claims. In addition, dependent claims 4-9, 11-18, 22-27, 29-36, 40-45 and 47-54 recite additional novel elements not shown by Johnson, Sandretto, Kuhlemeyer, Keyes and Atkins.

III. Conclusion

In view of the above, it is submitted that this application is now in good order for allowance and such allowance is respectfully solicited. Should the Examiner believe minor matters still remain that can be resolved in a telephone interview, the Examiner is urged to call Applicant's undersigned attorney.

Please consider this a PETITION FOR EXTENSION OF TIME for a sufficient number of months to enter these papers, if appropriate. Please charge all fees to Deposit Account No. 50-4370 of Teradata Corporation (the assignee of the present application).

Respectfully submitted,

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